## IN THE CLAIMS

The following listing of claims should replace all previous listings of the claims.

1. (Withdrawn) A reflection-type liquid crystal display panel having a back panel comprising a flat back substrate, an insulating layer formed on an innere surface of the back substrate, and reflective electrodes formed on the insulating layer;

wherein the insulating layer has a surface provided with minute irregularities, and

the electrodes are formed on the surface of the insulating layer in a shape conforming to the minute insulating layer in a shape conforming to the minute irregularities formed in the surface of the insulating layer.

2. (Withdrawn) The reflection-type liquid crystal display panel according to claim 1, wherein TFTs are formed on the back substrate (10a).

3. (Withdrawn) The reflection-type liquid crystal display panel according to claim 1, wherein the minute irregularities include ridges and valleys, and the height of the ridges of the minute irregularities is in the range of 0.4 to 10 μm.

4. (Withdrawn) The reflection-type liquid crystal display panel according to claim 1, wherein the electrodes are formed by patterning a metal thin film having a thickness of 1 μm or below.

5. (Withdrawn) A reflection-type liquid crystal display panel having a back panel comprising a flat back substrate, an insulating layer formed on an inner surface of the back substrate, and reflective electrodes formed on the insulating layer;

wherein the insulating layer is divided into portions arranged in a pattern which is substantially the same as a pattern in which the electrodes are arranged.

6. (Withdrawn) The reflection-type liquid crystal display panel according to claim 5, wherein TFTs are formed on the back substrate.

7. (Withdrawn) The reflection-type liquid crystal display panel according to claim 5, wherein the insulating layer has a surface provided with minute irregularities, and the back electrodes are formed on the insulating layer in a shape conforming to the minute irregularities of the insulating layer.

8. (Withdrawn) The reflection-type liquid crystal display panel according to claim 5, wherein the minute irregularities include ridges and valleys, and the height of the ridges of the minute irregularities is in the range of 0.4 to 10 μm.

9. (Withdrawn) The reflection-type liquid crystal display panel according to claim 5, wherein the first electrodes are formed by patterning a metal thin film having a thickness of 1 μm or below.

10. (Original) A method of fabricating a reflection-type liquid crystal display panel having a back panel comprising a flat back substrate, an insulating layer formed on an inner surface of the back substrate, and reflective electrodes formed on the insulating layer; said method comprising the steps of:

forming an insulating photosensitive resin layer on an inner surface of the back substrate;

exposing the photosensitive resin layer to light through a transparent sheet having a surface provided with minute irregularities after drying the photosensitive resin layer;

subjecting the exposed photosensitive resin layer to a developing process and drying the developed photosensitive resin layer to form an insulating layer having a surface provided with minute irregularities; and

forming a reflective metal film on the surface of the insulating layer provided with the minute irregularities.

11. (Original) A method according to claim 10, wherein the transparent sheet having the surface provided with the minute irregularities is a ground glass plate.

12. (Currently amended) A method according to claim 10, wherein the minute irregularities [[is]] <u>are</u> in the range of 0.4 to 10 μm.

13-20. (Canceled)

21. (New) A method according claim 10, wherein the minute irregularities of the transparent sheet are shaped such that light rays irradiated during exposure are deflected by the minute irregularities.

22. (New) A method according to claim 10, wherein the minute irregularities of the transparent sheet consist of minute ridges and valleys, in which the minute ridges concentrate light rays so that portions of the photosensitive resin layer corresponding to the ridges of the minute irregularities become more soluble or less soluble than the rest of the photosensitive resin layer.

## REMARKS

Claims 10-12 are pending in this application. Claims 1-9 have been previously withdrawn. Claims 13-20 have been previously canceled without prejudice or disclaimer. New claims 21-22 are added by way of this amendment. Claim 12 has been amended as a matter of form. Applicants submit that no new matter has been added. Applicants respectfully request reconsideration of the application in view of the following remarks.

## Claim Rejections – 35 U.S.C. § 102

Claims 10-12 have been rejected under 35 U.S.C. 102(e) as being anticipated by Shimada, et al. US Patent No. 5,949,507. Applicants respectfully traverse this rejection and submit that independent claim 10, and the claims dependent therefrom, are patentably distinct from the cited reference for the reasons discussed below.

Independent claim 10 recites, *inter alia*, "A method of fabricating a reflection-type liquid crystal display panel...comprising the steps of...exposing the photosensitive resin layer to light through a transparent sheet having a surface provided with minute irregularities after drying the photosensitive resin layer...." Applicants respectfully submit that the invention set forth in independent claim 10 is distinguishable from Shimada, et al. for at least the following reasons: (1) Shimada, et al. do not teach or suggest exposing the photosensitive resin layer to light through a transparent sheet having a surface provided with minute irregularities, as recited in independent claim 10; and (2) Shimada, et al. do not teach or suggest the formation of a viable insulating layer by implementation of a transparent sheet having a surface with minute

irregularities, but rather a method utilizing pattern holes in an opaque plate that requires additional processing and exposure steps to obtain a viable insulating layer. These distinguishing points are discussed in detail below.

First, Shimada, et al. do not teach or suggest a transparent sheet having minute irregularities. Instead, Shimada, et al. teach the use of an opaque plate 13c. Specifically, Shimada, et al. state, "As the photo mask 13, a[n opaque] plate 13c having two kinds of circular pattern holes 13a and 13b of different sizes as illustrated in Fig. 5 can be used" (see, col. 15, lines 7-13). As shown in Fig. 3B of Shimada, et al., photo mask 13 is exposed to light rays. However, the opaque plate 13c prevents light from reaching the insulating surface 12, except where pattern holes 13a and 13b are formed in the plate 13c. The implementation of an opaque plate 13c in Shimada, et al. results in the exposure of the insulating surface 12 to a different light intensity distribution than the light distribution produced by implementing a transparent sheet with minute irregularities, as discussed in greater detail below. Therefore, Applicants submit that the opaque plate 13c in Shimada, et al. does not anticipate the transparent sheet having minute irregularities recited in independent claim 10.

Further, the pattern holes 13a and 13b formed in photo mask 13 of Shimada, et al. (opaque plate 13c) do not anticipate a transparent sheet having a surface provided with minute irregularities as recited in independent claim 10. Shimada, et al. disclose that the pattern holes need to be arranged within certain predefined distances to produce a viable organic insulating layer 12. Specifically, Shimada, et al. explicitly define a minimum distance between pattern holes 13a and 13b ("separated at least by a distance of more than 2μm") (see, col. 15, lines 15-

17). Similarly, Shimada, et al. teach that pattern holes 13a and 13b should not be "separated too far [apart]..." (see, col. 15, lines 17-20). Applicants submit that implementing pattern holes disposed within specific configurations in an opaque plate, as disclosed in Shimada, et al., does not anticipate providing minute irregularities in a transparent sheet.

Second, exposure of the insulating layer 12 to light solely through pattern holes 13a and 13b, as taught by Shimada, et al., does not produce the same results achieved by exposure of the photosensitive resin layer to light though a transparent sheet with minute irregularities, as recited in independent claim 10. In Figs. 3A-3F, Shimada, et al. disclose a multiple-step process, including a first exposure step in which light rays are irradiated through the pattern holes 13a and 13b of the photo mask 13 (see, Fig. 3B). As illustrated therein, the light rays travel straight in one direction (i.e., the direction perpendicular to the surface of the photo mask 13). This results in exposing the surface of the organic insulating layer 12 to a binary distribution of light intensity (i.e., the surface is either exposed to light at full intensity or not exposed to light at all). Consequently, the developing process in Shimada, et al. of the organic insulating layer 12 results in upper surface corners of the minute protrusions 14a' and 14b' that are sharp and distinct (see, col. 15, lines 36-37). Following this exposure, the organic insulating layer 12 does not have minute irregularities (see, Fig. 3C).

In contrast to the teachings of Shimada, et al., in the method of the invention of claim 10, light rays are irradiated through a transparent sheet 18 provided with minute irregularities 18a. The minute irregularities 18a deflect the light rays as they pass through the transparent sheet. This achieves a continuous or analog distribution of light intensity during the

exposure step in claim 10. Advantageously, the surface of the insulating layer 12 can be formed with minute irregularities through a single exposure step using the transparent sheet 18 formed with minute irregularities 18a, as recited in independent claim 10.

In sharp contrast, Shimada, et al. require additional processing and exposure steps to create minute irregularities in the insulating layer 12. Specifically, Shimada, et al. teach that two further steps are required to refine the sharp minute protrusions 14a' and 14b' to obtain a finished insulating layer 12. A first step involves subjecting the minute protrusions 14a' and 14b' to heat treatment, to soften and round the sharp upper surface corners of the minute protrusions 14a' and 14b' (see, Fig. 3D). A second step involves performing a secondary exposure step (see, Figs. 3E and 3F). Thus, Shimada, et al.'s initial exposure and required additional processing and exposure steps in achieving a finished insulating layer 12 do not anticipate the formation of a viable insulating surface after a single light exposure through a transparent sheet having a surface with minute irregularities.

Accordingly, for the reasons discussed above, Applicants respectfully submit that independent claim 10 is patentably distinct from Shimada, et al. Applicants also submit that claims 11 and 12 and new claims 21 and 22 are patentably distinct from Shimada, et al. for the same reasons. Therefore, Applicants respectfully request withdrawal of this ground of rejection.

**Claim Rejections – 35 U.S.C. § 103**

Claim 12 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimada, et al. as applied to claims 10-11. Claim 12 depends from independent claim 10. For

at least the reasons detailed above related to the deficiencies identified in Shimada, et al. with regard to independent claim 10, Applicants submit that claim 12 is also patentably distinct from the cited reference. Therefore, Applicants request withdrawal of this ground of rejection.